

CLAIMS

- Sub E' 5
1. A composition free of whole *Eimeria* parasites, which comprises one or more proteins, or fragments or variants thereof; wherein said proteins:
- (a) are present in the hydrophilic phase of a Triton X-114 extract of *Eimeria* sporozoites
- (b) have molecular masses of  $26-30 \text{ kDa} \pm 5 \text{ kDa}$  (i.e.  $21-35 \text{ kDa}$ ) when determined by SDS-PAGE under reducing conditions.
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2. A composition according to claim 1, wherein said extract of *Eimeria* sporozoites is an extract of *E. tenella*, *E. acervulina*, *E. maxima*, *E. brunetti*, *E. necatrix* or *E. mitis* sporozoites.
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- Sub B' 3. A composition according to claim 1, or claim 2, wherein at least 50% w/w of proteinaceous material present is made up of one or more of said proteins, fragments and/or variants.
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4. A composition according to any preceding claim wherein a plurality (e.g. two or three of said proteins, fragments or variants thereof are present).
5. A composition according to any of claims 1 to 3 wherein only one of said proteins or fragments or variants thereof is present, e.g. in substantially pure form.
6. A nucleic acid molecule, which:
- Sub B<sup>3</sup>

a) encodes a protein, variant or fragment thereof, as described in any of claims 1 to 5,

b) is complementary to a nucleic acid molecule as described in a),

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or c) hybridises to a nucleic acid molecule as described in a) or b).

7. A nucleic acid molecule according to claim 6, which is in ~~isolated or~~ recombinant form.

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8. A vector comprising a nucleic acid molecule according to claim 6 ~~or claim 7~~.

9. A non-avian host comprising a vector according to claim 8 or a nucleic acid according to claim 6 or claim 7.

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10. A vector according to claim 8 or a host according to claim 9, which is adapted to express a protein, variant or fragment thereof as described in any of claims 1 to 5.

11. A pharmaceutically acceptable vaccine composition comprising a vector or host according to claim 10 (whether in live, killed or attenuated form).

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12. A pharmaceutically acceptable composition according to any of claims 1 to 5 in the form of a vaccine.

13. A composition according to claim 11 or claim 12 wherein said vaccine comprises an adjuvant.

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14. A composition according to claim 12 wherein the adjuvant is Quil A.

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 15. A composition according to any of claims 12 to 14, which is in unit dosage form.

5 16. A composition according to any of claims 1 to 5 or claims 11 to 15 for use in medicine.

17. The use of a composition according to any of claims 1 to 5 in the preparation of a vaccine against an *Eimeria*-mediated disorder, e.g. against coccidiosis.

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18. An antibody or a derivative thereof that binds with a protein, variant or fragment thereof as described in any of claims 1 to 5.

15 Sub All 19. An immunological reagent comprising a protein, variant or fragment thereof as described in any of claims 1 to 5 bound to a support or provided with a detectable label.

20 20. An immunological reagent comprising a protein, variant or fragment thereof as disclosed in any of claims 1 to 5, which is bound to a support or provided with a labelling substance.

Sub A 7 21. A test kit for the diagnosis of *Eimeria* infection comprising a nucleic acid molecule according to claim 6 or claim 7; an antibody or derivative thereof according to claim 18; or an immunological reagent according to claim 19 or claim 20.

Add A 8